

DEC 27 2006

Response dated: December 27, 2006
Appln. No. 10/658,449; Filed: September 9, 2003
Response to Office Action of August 28, 2006

Amendments to the Claims:

1. **(Original)** A prosthesis to replace all or a portion of a natural facet joint on a vertebral body comprising a prosthesis body accommodating fixation to the vertebral body at or near a pedicle and without support by a lamina, the prosthesis body including a fastening element installed within the vertebral body at or near a pedicle, and an artificial facet joint structure carried by the prosthesis body at a location spaced from the fastening element, the artificial facet joint structure being adapted and configured to replace all or a portion of a natural facet joint.

2. **(Original)** A prosthesis according to claim 1 wherein the fastening element is located superior to the artificial facet joint structure.

3. **(Original)** A prosthesis according to claim 1 wherein the artificial facet joint structure is posterior to the pedicle containing the fastening element.

4. **(Original)** A prosthesis according to claim 1 wherein the prosthesis body includes a caudal structure that extends from the fastening element toward a cephalad portion of a natural facet joint, and wherein the artificial facet joint structure is carried on the caudal structure.

5. **(Original)** A prosthesis according to claim 1 wherein the artificial facet joint structure is adapted and configured to articulate with a portion of a facet joint of an adjoining vertebral body.

6. **(Original)** A prosthesis according to claim 1 wherein the artificial facet joint structure is adapted and configured to replace a cephalad portion of a natural facet joint.

7. **(Original)** A prosthesis according to claim 1 wherein the artificial facet joint structure is adapted and configured to replace a cephalad portion of a natural facet joint and articulate with a caudal portion of a facet joint of an adjoining vertebral body.

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8. *(Original)* A prosthesis according to claim 1 wherein the artificial facet joint structure is fixed to the prosthesis body.

9. *(Original)* A prosthesis according to claim 1 wherein the artificial facet joint structure is fixed to the prosthesis body by adhesive or cement.

10. *(Original)* A prosthesis according to claim 1 wherein the artificial facet joint structure is fixed to the prosthesis body by mechanical attachment.

11. *(Original)* A prosthesis according to claim 1 wherein the artificial facet joint structure is removably carried by the prosthesis body.

12. *(Original)* A prosthesis according to claim 1 wherein the artificial facet joint structure is removably attached to the prosthesis body by frictional engagement.

13. *(Original)* A prosthesis according to claim 1 wherein the artificial facet joint structure is removably attached to the prosthesis body by a Morse taper.

14. *(Original)* A prosthesis according to claim 1 wherein the artificial facet joint structure comprises an insert fitted to the prosthesis body.

15. *(Original)* A prosthesis according to claim 1 wherein the artificial facet joint structure comprises an insert fitted by frictional engagement to the prosthesis body.

16. *(Original)* A prosthesis according to claim 1 wherein the artificial facet joint structure comprises an insert fitted by a Morse taper to the prosthesis body.

17. *(Original)* A prosthesis according to claim 1 wherein the artificial facet joint structure comprises a removable insert fitted to the prosthesis body.

18. *(Original)* A prosthesis according to claim 1 wherein the artificial facet joint structure pivots with respect to the prosthesis body.

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19. *(Original)* A prosthesis according to claim 1 wherein the artificial facet joint structure is made of at least one selected prosthetic material.

20. *(Original)* A prosthesis according to claim 1 wherein the selected prosthetic material includes polyethylene, rubber, tantalum, titanium, chrome cobalt, surgical steel, bony in-growth material, ceramic, artificial bone, or a combination thereof.

21. *(Canceled)*

22. *(Original)* A prosthesis according to claim 1 wherein the prosthesis body includes a bony in-growth material.

23. *(Canceled)*

24. *(Original)* A prosthesis according to claim 1 wherein the fastening element includes a bony in-growth material.

25. *(Withdrawn)* A method of replacing, on a vertebral body, all or a portion of a natural facet joint using the prosthesis defined in claim 1 to provide improved support for the spinal column, the method comprising the steps of (i) removing all or a portion of a natural articular process from the vertebral body, and (ii) fixing the prosthesis as defined in claim 1 to the vertebral body to replace the removed portion of the natural articular process with the artificial facet joint structure.

26. *(Withdrawn)* A method according to claim 25 further including a step of removing at least some of the lamina from the vertebral body.

27. *(Withdrawn)* A method according to claim 25 further including a step of removing at least part of a pedicle from the vertebral body.